

Title (en)

Decorating with powder material.

Title (de)

Verzierung mit Pulvermaterial

Title (fr)

Décoration à base de matériau en poudre

Publication

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Application

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Abstract (en)

A method for applying a pattern (21,57) of granular material (12, 12b, 12c, 12d) on a receiving surface (13), comprising in sequence associating said granular material (12, 12b, 12c, 12d) with a transferring surface (3) together with a liquid aggregating phase (9, 20) and according a prefiguration (10, 10b, 18, 56) of said pattern; facing said transferring surface (3) in a transferring zone (15, 45); the method further comprises heating at least one portion of said liquid phase (9, 20) in said transferring zone (15) in order to detach from said transferring surface (3) said granular material (12, 12b, 12c, 12d) and applying the latter on said receiving surface (13). An apparatus (1, 1b) for applying a pattern (21, 57) of granular material (12, 12b, 12c, 12d) on a receiving surface (13), comprises: a transferring surface (3) movable along a loop path with a transferring zone (15) defined in a portion facing said receiving surface (13); applying means (8, 8b, 11, 11 b, 11c, 11 d) arranged upstream of said transferring zone (15), suitable for applying said granular material (12, 12b, 12c, 12d) on said transferring surface (3) together with an aggregating liquid phase (9) and according a prefiguration (10, 18, 56) of said pattern (21, 57); the apparatus further comprises heating means (16, 25, 26, 46, 47, T) suitable for suddenly evaporating in said transferring zone (15) at least one portion of said aggregating liquid phase (9, 20) and thus cause said granular material (12, 12b, 12c, 12d) to detach from said transferring surface (3) and to cause said applying on said receiving surface (13).

IPC 8 full level

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Citation (applicant)

- EP 0530627 A2 19930310 - SEIKO EPSON CORP [JP]
- EP 0635369 A2 19950125 - TEKTRONIX INC [US]
- EP 0677364 A1 19951018 - SYFAL SRL [IT]
- EP 0727778 A1 19960821 - OCE NEDERLAND BV [NL]
- EP 0769728 A1 19970423 - HEWLETT PACKARD CO [US]
- EP 0834784 A1 19980408 - OCE TECH BV [NL]
- US 5890043 A 19990330 - UEHARA YASUHIRO [JP]
- IT 1287473 B1 19980806 - EMILCERAMICA S P A [IT]
- IT 1304942 B1 20010405 - T S C S R L [IT]
- IT 1310834 B1 20020222 - SIGHINOLFI SERGIO [IT]
- IT 1314624 B1 20021220 - CAMORANI CARLO ANTONIO [IT], et al
- IT 1262691 B 19960704 - ALGERI MARIS
- EP 1170104 A2 20020109 - RONFLETTE SA [LU]
- EP 1419863 A2 20040519 - T S C S P A [IT]
- EP 1162047 A1 20011212 - RONFLETTE SA [LU]
- EP 1266757 A2 20021218 - TECNO EUROPA SRL [IT]
- WO 2004028767 A1 20040408 - RONFLETTE SA [LU], et al
- WO 2005025828 A1 20050324 - MIRA DI ALGERI MARIS [IT], et al
- IT 1294915 B1 19990423 - ABBATECOLA VITO [IT], et al
- IT 1311022 B1 20020228 - TECNO EUROPA SRL [IT]
- IT RE20000040 A 20000505
- EP 0927687 A2 19990707 - ALGERI MARIS [IT], et al
- EP 0479512 A2 19920408 - CCA INC [JP]
- EP 0515098 A2 19921125 - CCA INC [JP]
- US 5736084 A 19980407 - UCHIDA HIROSHI [JP], et al
- IT MO980055 A 19980313
- IT 1251537 B 19950516 - MANTEGANI ENZO
- EP 0659526 A1 19950628 - CCA INC [JP]
- IT RE970044 A 19970618
- WO 0172489 A2 20011004 - ALGERI MARIS [IT], et al
- WO 9823424 A2 19980604 - CAMORANI CARLO ANTONIO [IT], et al

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